### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicants:

Paul J.G. Van Wulfften

Art Unit:

3672

Palthe

Serial No.:

10/740,016

Examiner:

Nicole A. Coy

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**§** § § § §

Title:

RIGLESS ONE-TRIP

Docket No.

68.0382

**SYSTEM** 

(SHL.0295US)

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

### REPLY BRIEF

Dear Sir:

Applicant's Reply to the Examiner's Answer is set forth below.

A. Can Claim 1 Be Anticipated under 35 U.S.C. § 102(b) by King (U.S. Patent No. 5,329,998) When King Fails to Disclose All of the Limitations of Claim 1?

King fails to disclose a screen assembly that is adapted to be engaged by a continuous medium to cause the release and movement of the screen assembly relative to a production tubing. The Examiner contends that King's screen assembly "is capable of being released and moved by continuous medium, if the continuous medium had a cutter attached to it." Examiner's Answer, pp. 11-12. However, King fails to mention such a cutter, and the Examiner fails to establish the existence of such a cutter. In other words, the Examiner has shown no evidence of a cutter that could be deployed inside King's inner service flow conductor 40 for purposes of purportedly severing the screen 24. Thus, the Examiner's rejection is improperly based on mere speculation. Furthermore, severing

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Janice Munoz

King's screen 24 from the flow conductor 40 via the purported cutter (assuming such a cutter exists) is not tantamount to *engaging* a screen assembly with the continuous medium.

Therefore, for at least any of the foregoing reasons, Applicant maintains that King fails to disclose the screen assembly of independent claim 1, and for at least this reason, King fails to anticipate claim 1.

# B. Can Claims 29-34 Be Rendered Obvious under 35 U.S.C. § 103(a) as Being Unpatentable over Lund (U.S. Patent No. 6,675,893) When Lund Fails to Teach or Suggest All Limitations of Claim 29?

To derive the limitations of independent claim 29, the Examiner is contending that it would have been obvious for one of skill in the art to modify the combined perforating gun and production string system that is disclosed in Lund's Background section with a completion system that is disclosed in Lund's Detailed Description section to derive the claimed invention. However, the Examiner's argument is specious, as the Examiner fails to explain how Lund teaches or suggest such a completion system.

More specifically, the completion systems that are described in Lund's Detailed Description section are not one-trip systems (i.e., systems in which the production tubing and perforating gun are run downhole in a single trip) but are instead multiple trip systems in which a perforating assembly is first run into the well and fixed relative to a casing and thereafter, a production tubing is run into the well. Although these systems may be operated without a rig after downhole installation, the Examiner fails to explain how any of these systems can be modified to produce a one-trip system in which a perforating gun and production tubing are run into the well at the same time <u>and</u> thereafter allow a continuous medium to be run into the well after a rig is removed to actuate and operate the system.

Lund's Background section describes a completion system in which a perforating gun is attached to a production tubing. With this system, the well is perforated and completed using a rig. Lund, 2:7-12. Lund states that it would be advantageous to remove the rig from the well to save costs. Lund, 2:2-7. It is noted that the system that is disclosed in the Background section of Lund does not teach or suggest, after removal of the rig, running a continuous medium downhole into a one-trip completion system to

actuate and operate the system, as the Background section states essentially states that this operation is not possible using the combined perforating gun and production tubing system.

Lund's Detailed Description section does not teach or suggest how to use the one-trip system that is disclosed in Lund's Background section in a system in which a rig may be removed and a continuous medium may thereafter be used to actuate and operate the system. Instead, the completion system that is disclosed in Lund's Detailed Description section departs from a one-trip system, as explained in the Appeal Brief. One of skill in the art in possession of Lund would not know how to modify the completion system described in Lund's Detailed Description section to make this system a one-trip system, or vice versa. Instead, one of skill in the art, without the benefit of the current application, would only assume from Lund that separation of the production tubing and perforating gun, as taught by Lund, is needed for purposes of perforating and packing multiple zones after the rig has been removed. This is in contrast to the claimed invention that includes running a one-trip completion system into a well and after removal of a rig, running a continuous medium downhole into the one-trip completion system to actuate and operate the system. Thus, Applicant maintains that Lund fails to teach or suggest the claimed invention.

Applicant respectfully requests that each of the final rejections be reversed and that the claimed subject of this appeal be allowed to issue.

Date: January 25, 2008

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Respectfully submitted,

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#### **APPENDIX OF CLAIMS**

The claims on appeal are:

A one-trip system for use in a subterranean well comprising:

 a unit adapted to be run downhole into the well in a single trip, the unit comprising:
 a tubing hanger adapted to be mounted to one of the well and a well casing near the earth's surface;

a production tubing sealingly attached to the tubing hanger and adapted to receive a continuous medium riglessly deployed from the earth's surface;

a perforating gun assembly coupled to the production tubing; and

a screen assembly adapted to be engaged by the continuous medium to cause the release and movement of the screen assembly relative to the production tubing.

- 2. The one-trip system of claim 1, further comprising a packer attached to a lower end of the production tubing.
- 3. The one-trip system of claim 2 further comprising a valve located near the earth's surface and mounted above the tubing hanger to control flow of well fluids.
  - 4. The one-trip system of claim 2, further comprising:
    a surface-controlled subsurface safety valve located in-line with the production tubing.
  - 5. The one-trip system of claim 2, further comprising: an artificial lift device to assist in the production of well fluids.
- 6. The one-trip system of claim 5, wherein the artificial lift device comprises a gas lift mandrel or an electric submersible pump.
- 7. The one-trip system of claim 2, further comprising: an upper sliding sleeve valve mounted in-line with the production tubing above the packer.

- 8. The one-trip system of claim 2, further comprising an extension having an intermediate sliding sleeve valve mounted below the packer.
  - 9. The one-trip system of claim 1, further comprising:
  - a selective nipple;
  - a shroud attached to the selective nipple;
- an inner string releasably mounted within an interior of the system; and a no-go nipple mounted to the shroud, wherein
  - a perforating assembly is mounted below the no-go nipple.
- 10. The one-trip system of claim 9, wherein the perforating assembly includes a perforating gun.
- 11. The one-trip system of claim 9, wherein the perforating assembly includes a firing head.
- 12. The one-trip system of claim 9, wherein the perforating assembly includes a safety spacer.
- 13. The one-trip system of claim 9, further comprising a lock to keep the inner string secured to the selective nipple.
- 14. The one-trip system of claim 9, wherein the inner string comprises a sand exclusion device.
- 15. The one-trip system of claim 14, wherein the sand exclusion device comprises a sand screen.
- 16. The one-trip system of claim 14, wherein the sand exclusion device comprises an expandable element.

- 17. The one-trip system of claim 9, wherein the inner string is adapted to be moved from a first configuration of being mounted to the selective nipple to a second configuration in which it is mounted to the no-go nipple.
- 18. The one-trip system of claim 9, wherein the inner string comprises a lower sliding sleeve valve.
- 29. A method to complete a subterranean well in one trip comprising:

  providing a one-trip completion system including at least a perforating gun and a production tubing;

running the one-trip completion system into the well in a single trip using a rig; removing the rig;

after the removal of the rig, running a continuous medium downhole into the one-trip completion system; and

actuating and operating the one-trip completion system using the continuous medium.

- 30. The method of claim 29, wherein the continuous medium comprises coiled tubing.
- 31. The method of claim 29, wherein the actuating and operating includes performing a gravel pack operation.
- 32. The method of claim 29, wherein the actuating and operating includes performing a fracturing operation.
- 33. The method of claim 29, wherein the actuating and operating includes performing a perforating operation.
- 34. The method of claim 29, wherein the actuating and operating includes moving a sand exclusion device to a position adjacent perforations in a well casing.

## 35. A method to complete a well in one trip comprising:

placing a one-trip completion system in a desired location in the well using a rig, the one-trip completion system having a perforating gun, a sand screen, and production tubing;

removing the rig;

firing the perforating gun to create perforations in a subsurface formation; after removal of the rig, running a continuous medium downhole to engage the sand screen and move the sand screen to a position adjacent the perforations;

pumping gravel outside of and around the sand screen; and producing fluids from the well through the production tubing.